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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/650,246

08/28/2003

Frank Athari

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11/16/2010

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EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT

PAPER NUMBER

2836

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/650,246	Applicant(s) ATHARI, FRANK	
	Examiner MICHAEL RUTLAND WALLIS	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 10/6/10 have been fully considered but they are not persuasive.

With respect to claim 25 Applicant cites The Examiner has rejected claims 25 and 33 under 35 USC § 103(a) as being unpatentable for alleged obviousness by Pelly in view of Kolar in view of Takahashi in view of Sato. Applicant further recites, as discussed above, amended independent claim 25 is patentably distinguishable over Pelly, Kolar, and Takahashi. Thus claims 25 and 33 depending from amended independent claim 25 are, afortiori, also patentably distinguishable over Pelly, Kolar, and Takahashi, or any combination of Pelly, Kolar, and Takahashi with other cited art, such as Sato, for at least the reasons presented above and also for additional limitations contained in each dependent claim.

In response, claim 25 does not depend from claim 25, rather claim 25 is an independent claim, Applicant has not set forth a clear set of arguments to said claim. It is therefore submitted Applicant has failed to adequately address and properly traverse the rejection of claim 25 with the teachings of Sato. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references Pelly in view of Kolar in view

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of Takahashi in view of Sato as the references have been applied to independent claim 25.

Applicant's remaining arguments in view of the amendments made to the claims and drawings have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 14-19, 21-23, 25 and 27-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al. (U.S. Pat. No. 6,839,250)

With respect to claims 14-15, 21, 23 and 27-32 Takahashi teaches a circuit arrangement comprising: an active EMI filter (abstract line 1) including an input and an output, said input connected configured to receive an output voltage from a power switching stage (col. 6 lines 55-65) and said output of said active EMI filter configured to provide providing a filtered output voltage (col. 1 lines 25-35) to a load (for example motor col. 1 line 35); a current sensor (col. 8 line 51) sensing a common mode current to said load; an amplifier stage (Fig. 3) including first and second transistors (Q1 and

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Q2) each controlled by said current sensor (see connections to transformer), collectors of said first and second transistors connected together sharing a common connection (see Fig. 3A col. 4 lines 45-50); isolating circuitry (Cfilt) coupled to said connected collectors of said first and second transistors common connection and a ground line, wherein said isolating circuitry passes a current to cancel (col. 4 lines 5-10) said common mode current in said ground line.

With respect to claim 22 Takahashi teaches wherein said ground line (see ground line) connects said load (for example motor) and said power switching stage (see input connections).

With respect to claim 16 Takahashi teaches wherein said current sensor comprises a current transformer (CT) including first and second primary windings (T1 and T2) and first and second secondary windings (T3 and T4), said first and second secondary windings being connected to additively reflect (via the returning of current to AC line col. 4 lines 40-45) said common mode current in said first and second secondary windings.

With respect to claims 17, 19 and 25 Takahashi teaches wherein said current sensor comprises a current transformer (CT) including first and second primary windings (T1 and T2) and first and second secondary windings (T3 and T4), said first and said second primary windings coupled respectively to input terminals of said active EMI filter and said first and second secondary windings coupled respectively to said first and second transistors.

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With respect to claim 18 Takahashi teaches wherein said first and second transistors are complementary (See Fig. 4), only one of said complementary transistors conducting depending upon a direction (col. 4 lines 1-10) of a current in said first and second secondary windings

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (U.S. Pat. No. 6,839,250) in view of Ohkawa et al. (U.S. Pat. No. 5,668,464)

With respect to claim 20 and 26 Takahashi teaches the power switching stage comprises an output stage comprising a capacitor with the output voltage provided across the capacitor. Takahashi does not teach the use of an inductor in combination with the capacitor in the output stage. Ohkawa teaches (item 130) the use of an input filter (items 18 and 36) connected at the output of the power switching stage. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Pelly to include the use of an inductor in order to filter the supplied voltage.

Claims 24 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (U.S. Pat. No. 6,839,250) in view of Sato (U.S. Pat. No. 5,731,689) Takahashi does not teach the use of a power transistor switching stage to output the AC output voltage. Sato teaches a control system wherein a power transistor switching stage is provided to provide an AC power output from a DC power source. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Pelly to use a power transistor switching stage which is a switch mode power supply in order to provide a filter voltage from a battery supply.

Claims 25 and 33 are rejected under 35 U.S.C. 103(a) as being anticipated by Pelly (U.S. Pat. No. 6,636,107) in view of Kolar (U.S. Pat. No. 6,700,806) in further view of Takahashi et al. (U.S. Pat. No. 6,842,069) in view of Sato (U.S. Pat. No. 5,731,689) Pelly teaches a circuit arrangement comprising: an active EMI filter (see Fig. 1) including an input and an output, said input connected to receive an output voltage from a power switching stage (item 100 and said output of said active EMI filter providing a filtered output voltage to a load (motor); a current sensor sensing (CT sensing) a common mode current to said load; an amplifier stage including first and second transistors (Q1 and Q2) each controlled by said current sensor, collectors of said first and second transistors sharing a common connection; isolating circuitry coupled to said common connection and a ground line, wherein said isolating circuitry passes a current to cancel said common mode current in said ground line. Pelly does not illustrate at the use of a transistor based switching stage arranged at the input. Kolar teaches (col. 2 lines 30-50) power transistors may be arranged as means to control the voltage

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conversion. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Pelly to use power transistors in order to reduce the output voltage. Pelly teaches the use of an active EMI filter however does not teach the use of a second secondary. Takahashi teaches the use of first and second secondaries (Fig 3 and 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Pelly to reduce common mode noise in order to allow the voltage a boosted voltage at the current sensing terminal. Pelly does not teach the use of a power transistor switching stage to output the AC output voltage. Sato teaches a control system wherein a power transistor switching stage is provided to provide an AC power output from a DC power source. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Pelly to use a power transistor switching stage which is a switch mode power supply in order to provide a filter voltage from a battery supply.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jared Fureman can be reached on 571-272-2391. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Michael Rutland-Wallis/
Primary Examiner, Art Unit 2836